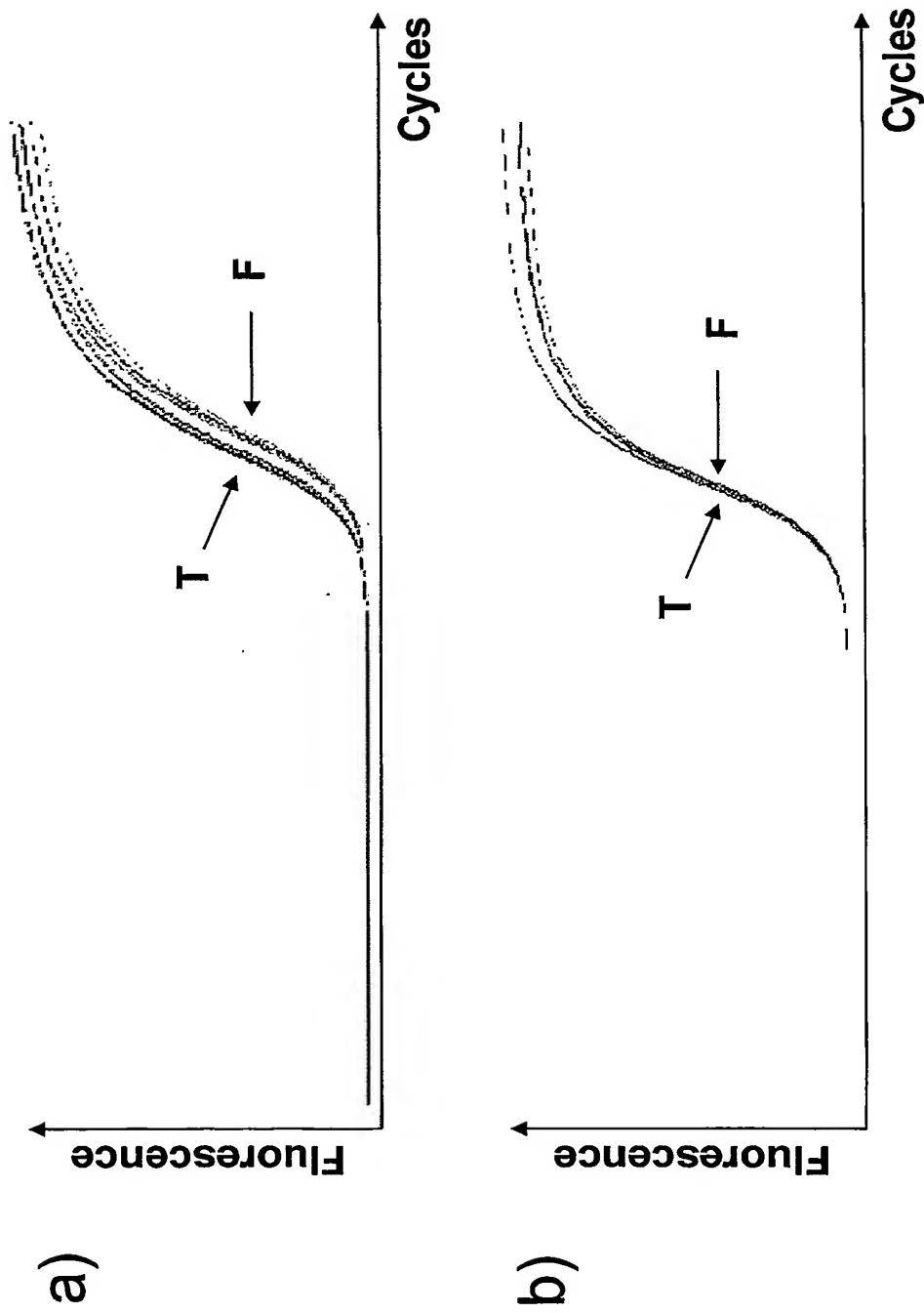


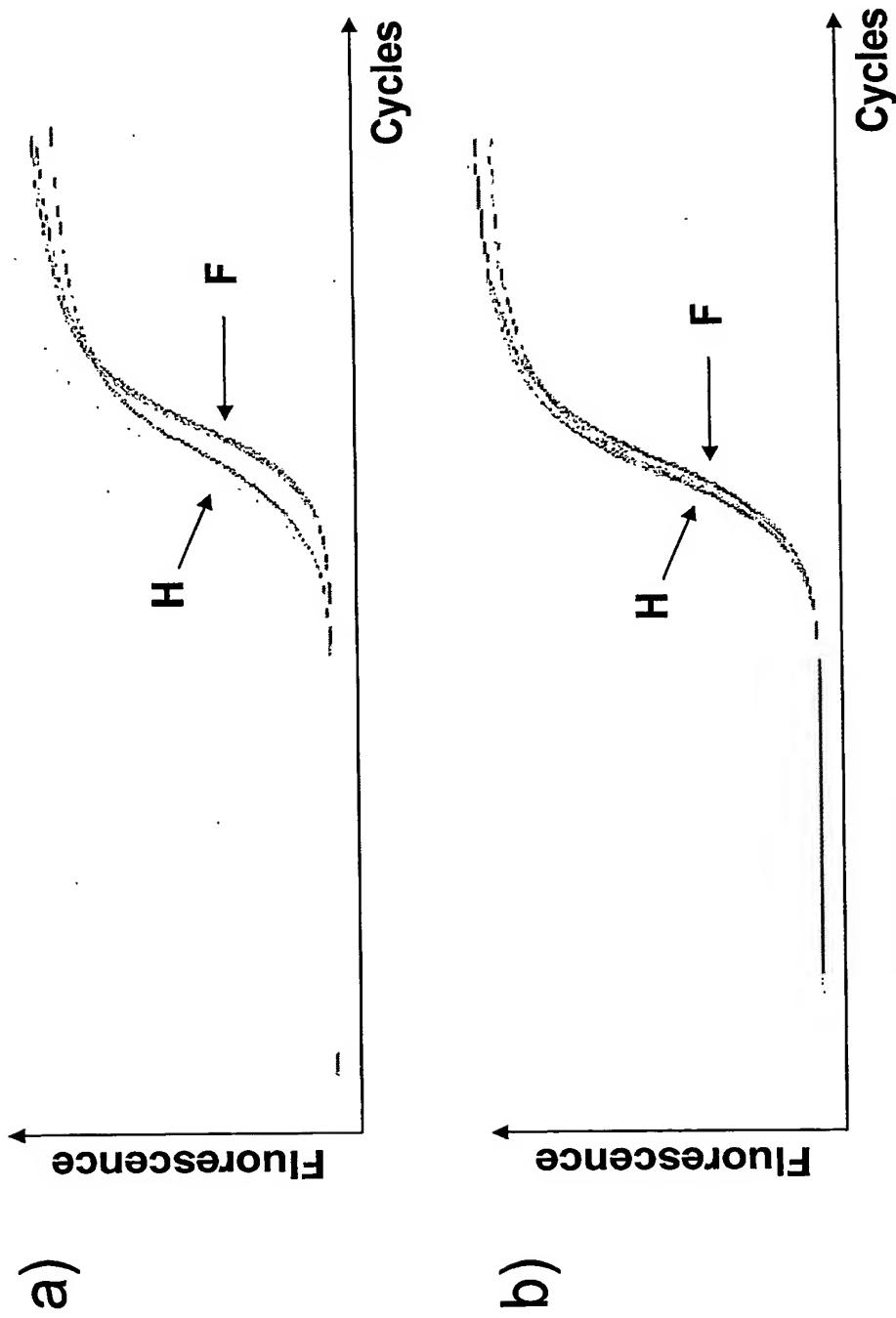
-1/13-

**Fig. 1: Verification of differential expression
of human SGPL1 by quantitative RT-PCR**



-2/13-

Fig. 2: Verification of differential expression of human SGPL1 by quantitative RT-PCR



-3/13-

**Figure 3 : SEQ ID NO. 1:
amino acid sequence of
human SGPL1 protein**

Length: 568 aa

```
1 MPSTDLLMLK AFEPYLEILE VYSTKAKNYV NGHCKYEPW QLIAWSVVWT
51 LLIVWGYEFV FQPESLWSRF KKKCFKLTRK MPIIGRKIQD KLNKTKDID
101 KNMSFLKVDK EYVKALPSQG LSSSAVLEKL KEYSSMDAFW QEGRASGTVY
151 SGEEKLTELL VKAYGDFAWS NPLHPDIFPG LRKIEAEIVR IACSLFNGGP
201 DSCGCVTSGG TESILMACKA YRDLAFEKGK KTPEIVAPQS AHAAFNKAAS
251 YFGGMKIVRVP LTKMMEVDRV AMRRAISRNT AMLVCSTPQF PHGVIDPVPE
301 VAKLAVKYKI PLHVDACLGG FLIVFMEKAG YPLEHPFDFF VKGVTSISAD
351 THKYGYAPKG SSLVLYSDKK YRNYQFFVDT DWQGGIYASP TIAGSRPGGI
401 SAAAWAALMH FGENGYVEAT KQIIKTTARFL KSELENIKGI FVFGNPQLSV
451 IALGSRDFDI YRLSNLMTAK GWNLNLQFP PSIHFCCITLL HARKRVAIQF
501 LKDIRESVTQ IMKNPKAKTT GMGAIYGMAQ TTVDRNMVAE LSSVFLDSLY
551 STDTVTQGSQ MNGSPKPH
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-4/13-

**Figure 4: SEQ ID NO. 2:
human SGPL1 cDNA
nucleotide sequence**

Length: 5741 bp

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1   GCGGCTGCCG  GGCTCCAAT  CTCGGCGCG  GCGGCGGCAA  CAGGGGAGCC
51  TGGGTCTCGC  GGCTCGAG  TCCGTCGCGT  GCTGAGGGAG  ACGCAGGAGG
101 TGGAGCCGGC  CGGGTGCTCG  AGGGAAGGAG  ACTGGAAGCT  GGTTCCGGCG
151 TGAGGAGAGT  CTGAAAAAGG  GGAGCGCGGA  GAGGAGGCTG  GAAGAGGAAG
201 ATGCCTAGCA  CAGACCTTCT  GATGTTGAAG  GCCTTGAGC  CCTACTTAGA
251 GATTGGAA  GTATACTCCA  CAAAAGCCAA  GAATTATGTA  AATGGACATT
301 GCACCAAGTA  TGAGCCCTGG  CAGCTAATTG  CATGGAGTGT  CGTGTGGACC
351 CTGCTGATAG  TCTGGGGATA  TGAGTTGTC  TTCCAGCCAG  AGAGTTATG
401 GTCAAGGTTT  AAAAAGAAAT  GTTTTAAGCT  CACCAGGAAG  ATGCCCATTA
451 TTGGTCGTA  GATTCAAGAC  AAGTTGAACA  AGACCAAGGA  TGATATTAGC
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601 GCTCTATGGA  CGCCTCTGG  CAAGAGGGGA  GAGCCTCTGG  AACAGTGTAC
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701 TGCATGGAGT  AACCCCCCTGC  ATCCAGATAT  CTTCCCAAGGA  CTACGCAAGA
751 TAGAGGCAGA  AATTGTGAGG  ATAGCTGTT  CCCTGTTCAA  TGGGGGACCA
801 GATTGTTGTG  GATGTGTGAC  TTCTGGGGGA  ACAGAAAGCA  TACTGATGGC
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901 AAATTGTGGC  TCCCCAAAGT  GCCCATGCTG  CATTAAACAA  AGCAGCCAGT
951 TACTTGGGA  TGAAGATTGT  GCGGGTCCCA  TTGACGAAGA  TGATGGAGGT
1001 GGATGTCGGG  GCAATGAGAA  GAGCTATCTC  CAGGAACACT  GCCATGCTCG
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1751 GAAGACCACA  GGAATGGGTG  CCATCTATGG  CATGGCCAG  ACAACTGTTG
1801 ACAGGAATAT  GGTTGCAGAA  TTGTCCCTAG  TCTTCTTGG  CAGCTTGTAC
1851 AGCACCGACA  CTGTCACCCCA  GGGCAGCCAG  ATGAATGGTT  CTCCAAAACC
1901 CCACTGAAC  TGGACCCCTT  CTAGTCTCAA  GGGGATTCCA  GCCTTCAGAA
1951 GGTTCTTGGG  ATATGGAACA  GGCGTGCAC  AACTTGACA  TCTGGTCTTG

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-5/13-

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2101	CCAGAGAATT	CCATTACATA	ATGATTTGC	CCTTGTATATA	AATGTTACCC
2151	TAGGAATTGT	TTAACCAATT	TCCTTTCTA	AACTCTCTAG	CTTCAACTT
2201	TAACCTAAACA	TTGTGTGGTA	GCTCTGACCT	GTCCTGATT	TTTAGAGAAG
2251	CTGGGGTACA	GTTTATGAGA	TAGCTAGAGC	TTCTTTGTTA	TCTCAGGCCAG
2301	GAGGCCTTTA	CATAACAGAT	GTTTCCTCAG	CTGGGTGTGA	GGTATACTCT
2351	AAGCAGGAGG	CTTTTCAGC	CTTCTCTCTC	TTTTTTTTT	TTTTTTTTT
2401	TTGAGATGGA	ATTTTGCTCT	TTTGCCCAGT	CTGGAGTGCA	GTGGCATGAT
2451	CTCAGCTCAC	TGCAACCTCC	ACCCACTGGG	TTCAAGCGAT	TCTTCTGCCT
2501	CAGCCTCCCG	AGTAGCTGGG	ATTACCGGCA	CCCACCACCA	CGCCTGGCTA
2551	ATTTTCAAT	TTTCTTTTC	AGTAGAGACG	GGTCACCGT	GTTGGCCAGG
2601	CTGGTCTTGA	ACTCCTGACC	TCAGGtgata	CCCGCCCCCC	CGCCTCAGCC
2651	TCCCCAAAGTG	CTGGGATTAC	AGGCgtgagc	CACCGTGCCT	GGCCCTGTCT
2701	CTCTTAAGAG	TAGGTTCTT	GTCTGTCTTA	GAGTCACTTC	TATTGCAACT
2751	CATTTCTTT	TTCCAGGGCA	CAGATCGACC	AAGCTGCCGT	TCCCTATTCT
2801	GCAGGACAGG	ACTATTCTAG	CATACCTGCT	TCGTCCACCC	AGGCAGGGTT
2851	TGGGGTGGTC	TCTTCTGTGC	CTGCAGTCCC	CATTTGACAC	TTGGTTGCCA
2901	CCATCTTGG	AGATTATTGT	TTGGAATGAT	GCTTCCATTG	GCTTTTCTT
2951	GTTACCATGG	ACTAGGAAGA	AAACATGGTT	TCCAAATAAT	CTGGGAGCTT
3001	TTGGCCATGG	TGCCGCCTTC	CTGAATTGGC	AGTGGTCAGA	GCACACCTGA
3051	ACCCATATCCT	GGGCTGGTGA	TGAGCAGAAA	TCAGACCTTT	TTCTATGCTT
3101	TTTTGAATAT	CAGAGTAGGA	TGAACACCCA	GATTCAAATA	TGTCACCAAA
3151	GTTGGTGGTG	GTCCTTCCCT	GCACCCCTGC	GTAAAGCCAT	TATGTAATGA
3201	AAATGTGTTT	GCTTGAAGGA	ACAGCTCAAA	GCACCTTCAC	AAGTTGCCTT
3251	GAATTACCCCT	AGGTGGGTGT	GAAAGAGCAC	CCGTAGCAAG	AAAAATTTC
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3351	TAATATGGCA	GTTCAGGCTC	AGGTGCTGAA	CATTTCTCAG	CCCTGGCTAA
3401	AAGGGAGCAG	CACAGGGAGA	GAAACAGGAT	AGGAAAGCAG	AATGGCGAGC
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3501	TGGTGCAGGG	ACAGGACCAG	ACCCTGCGCC	TATTTCTGC	CTTCTTTCCC
3551	CTATAGGGAA	CTCTGTAGGC	TGAGCCACTG	TCCTGCTCTT	ATGACATTAT
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3651	GCCCTAGGGG	AAATGGATCA	GTCTTGAGG	TTTCTATTG	GGGAGGGGGAG
3701	TAACCTAAGAT	GAGTCAAAAG	ACACTTCCCT	CTGTTCCATT	CCCCATCTCA
3751	GGGACTCCTG	AAATATTCA	CTCTCCAGGC	TGGTGTCTTC	TAGTTTCCCC
3801	CACTGGGAAT	GCTGGCTGGG	AGAGCCATGA	CTACCAGACT	TTTCCTCAGG
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3901	AAACAACTGTG	ACTAGCTGGC	CACGCCATT	AGGGCTGGTG	TGGCATTAT
3951	GTGTGTGTGT	GTGTGTGTGT	GTTCCTTG	TTTGCCAGC	AGTGCATTGT
4001	GGGTTCCAAG	AGTGGGTAGT	GTGTGTATGT	GTGTGTGTCA	GAGGGAGACC
4051	TGGCAGGCAC	CTCTTGAGA	GTAGCTGTGG	TCAGAGCTGT	TTGGTCAGTG
4101	CATTATGTTG	AATGAGGTCC	AGGAACCCAG	AGCCACCCAG	CAGACACCCAC
4151	TGTGGCTTGC	CAGCTGCCAA	GATGGAGAAG	CATGTGCC	TGTAGAGCGT
4201	CTCCCCAGAA	CCAGACCCCG	AGCCACTCGC	TTCCTCTGTG	CTGTGACAAAC
4251	ATTGGTGCCA	GGGGAGATGG	TGTTTTCAA	AGGGACCTAC	TGTAGCCACT
4301	TTAATTTACA	ATTAAGAGCC	TTAGTTGAC	TTAACACTT	TGTAGGCTTT
4351	TCATTGTGTA	TTTTGTGTA	TGTGTGATA	TAGCAGCTAC	TCTGTAGCAG
4401	AGGTGGGTAG	AGACACTTAA	TAGTATCATG	TCGCATGCAG	ATGTCACATC

-6/13-

4451 GGCCTCTGCA AAAACTGTAC TGTCTTGTTC CTGCATTAGA CTTAAGTAGT
4501 CATGTGAATA TACTGCTATG TCACCTTTAA TATTACCGAGT TTTATACTTG
4551 GAAAATGGTA CTTGCTTCTT TTAAATCTCT GTCTTCTCTA ACCTCCCCCT
4601 TCCCATTCA ATGCTCCCTT CCTAATTCA GCAATAATCT CAAAAAGCAA
4651 TTAAATAGTT AAATGACCCT AATTGTAATT ACTGTGGATG GTTGCATTCA
4701 TTTGATTACT TGGGCACACA CGAGATGACA AATGGGGCAG TGGCCATGCT
4751 TGAATGGGCT CCTGGTGAGA GATTGCCCTT TGTTGGTGAA ACAATCGTGT
4801 GTGCCCACTG ATACCAAGAC CAATGAAAGA GACACAGTTA AGCAGCAATC
4851 CATCTCATTT CCAGGCACCT CAATAGGTGCTG CTGATTGGTC CTTGCACCAAG
4901 CAGTGGTAGT CGTACCTATT TCAGAGAGGT CTGAAATTCA GTTCTTAGT
4951 TTGCCAGGGAA CAGGCCCTAT CTTATATTTT TTTCCATCTT CATCATCCAC
5001 TTCTGCTTAC AGTTGCTGC TTACAATAAC TTAATGATGG ATTGAGTTAT
5051 CTGGGTGGTC TCTAGCCATC TGGGCAGTGT GGTTCTGTCT AACCAAAGGG
5101 CATTGGCCTC AAACCCTGCA TTTGGTTAG GGGCTAACAG AGCTCCTCAG
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5351 TAGTTCTGA GTACCTGGAA ACCAGAGAGA AAGAGGATCC AGGATGTACT
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5451 GCTGCTCCAT ACAGCTGTAC GTCAGCCCTT TGGCCTTCTC TGTAGGTTCT
5501 TGGCAGCAAT GAGCAGCTT CACTCAGTGA CACAAGTAAT TACTGAGTCC
5551 TAATTGATA GCCACCAACT GTACCTGGGT AGGCAAAGTC AGATTTTGA
5601 GAACCTTTT CCTGATTTGA AGTTTAATT ACCTTATTCTT CTTTATGCT
5651 TTCCTCTGTC TTGTAATCTT TTCTCTTCTT AATATCCTTC CCTATAATTT
5701 CAATTATTTG GATTAATTAGA AGAATAAAACC TATTTATTCTC T

-7/13-

Figure 5: SEQ ID NO. 3: nucleotide sequence of human SGPL1 coding sequence

Length: 1707 bp

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1 ATGCCTAGCA CAGACCTTCT GATGTTGAAG GCCTTGAGC CCTACTTAGA
51 GATTTGGAA GTATACTCCA CAAAAGCCAA GAATTATGTA AATGGACATT
101 GCACCAAGTA TGAGCCCTGG CAGCTAATTG CATGGAGTGT CGTGTGGACC
151 CTGCTGATAG TCTGGGGATA TGAGTTGTC TTCCAGCCAG AGAGTTTATG
201 GTCAAGGTTT AAAAAGAAAT GTTTAACGCT CACCAGGAAG ATGCCCATTA
251 TTGGTCGTAA GATTCAAGAC AAGTTGAACA AGACCAAGGA TGATATTAGC
301 AAGAACATGT CATTCCGTAA AGTGGACAAA GAGTATGTGA AAGCTTTACC
351 CTCCCAGGGT CTGAGCTCAT CTGCTGTTT GGAGAAACTT AAGGAGTACA
401 GCTCTATGGA CGCCTTCTGG CAAGAGGGGA GAGCCTCTGG AACAGTGTAC
451 AGTGGGGAGG AGAACGCTCAC TGAGCTCCTT GTGAAGGCTT ATGGAGATT
501 TGCATGGAGT AACCCCCCTGC ATCCAGATAT CTTCCCAGGA CTACGCAAGA
551 TAGAGGCAGA AATTGTGAGG ATAGCTTGTT CCCTGTTCAA TGGGGGACCA
601 GATTCTGTG TGATGTGTGAC TTCTGGGGGA ACAGAAAGCA TACTGATGGC
651 CTGCAAAGCA TATCGGGATC TGGCCTTGA GAAGGGGATC AAAACTCCAG
701 AAATTGTGGC TCCCCAAAGT GCCCATGCTG CATTAAACAA AGCAGCCAGT
751 TACTTTGGGA TGAAGATTGT GCGGGTCCCA TTGACGAAGA TGATGGAGGT
801 GGATGTGCGG GCAATGAGAA GAGCTATCTC CAGGAACACT GCCATGCTCG
851 TCTGTTCTAC CCCACAGTTT CCTCATGGTG TAATAGATCC TGTCCCTGAA
901 GTGGCCAAGC TGGCTGTCAA ATACAAAATA CCCCTTCATG TCGACGCTTG
951 TCTGGGAGGC TTCCTCATCG TCTTTATGGA GAAAGCAGGA TACCCACTGG
1001 AGCACCCATT TGATTTCGG GTGAAAGGTG TAACCAGCAT TTCAGCTGAC
1051 ACCCATAAGT ATGGCTATGC CCCAAAAGGC TCATCATTGG TGGTGTATA
1101 TGACAAGAAG TACAGGAACT ATCAGTTCTT CGTCGATACA GATTGGCAGG
1151 GTGGCATCTA TGCTTCCCCA ACCATCGCAG GCTCACGGCC TGGTGGCATT
1201 AGCGCAGCCT GTTGGGCTGC CTTGATGCAC TTCGGTGAGA ACGGCTATGT
1251 TGAAGCTACC AAACAGATCA TCAAAACTGC TCGCTTCCTC AAGTCAGAAC
1301 TGGAAAATAT CAAAGGCATC TTTGTTTTG GGAATCCCCA ATTGTCAGTC
1351 ATTGCTCTGG GATCCCCTGA TTTTGACATC TACCGACTAT CAAACCTGAT
1401 GACTGCTAAG GGGTGGAACT TGAACCAGTT GCAGTTCCCA CCCAGTATTC
1451 ATTTCTGCAT CACATTACTA CACGCCCGGA AACGAGTAGC TATACAATTC
1501 CTAAAGGACA TTGAGAACATC TGTCACTCAA ATCATGAAGA ATCCTAAAGC
1551 GAAGACCACA GGAATGGGTG CCATCTATGG CATGGCCAG ACAACTGTTG
1601 ACAGGAATAT GGTTGCAGAA TTGTCCTCAG TCTTCTTGGGA CAGCTTGTAC
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1701 CCACTGA

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-8/13-

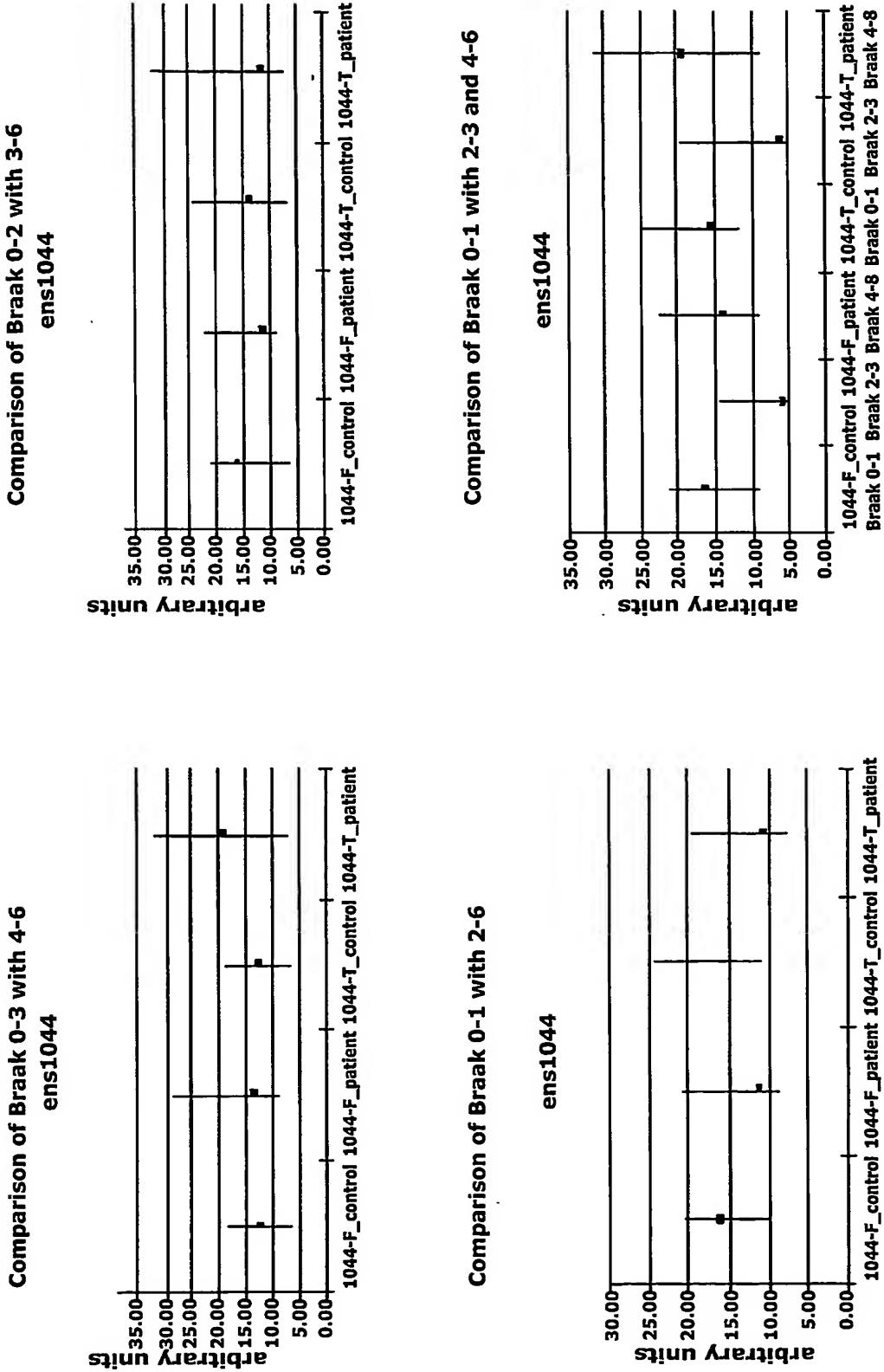
**Fig. 6: Alignment of SGPL1 RT-PCR
primers with human SGPL1 cDNA,
SEQ ID NO.2**

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4802 TGCCC ACTGATA CCAGACCA 4822

21 TCCATCTCATTCCAGGC ACT 1
|||||||
4849 TCCATCTCATTCCAGGC ACT 4869

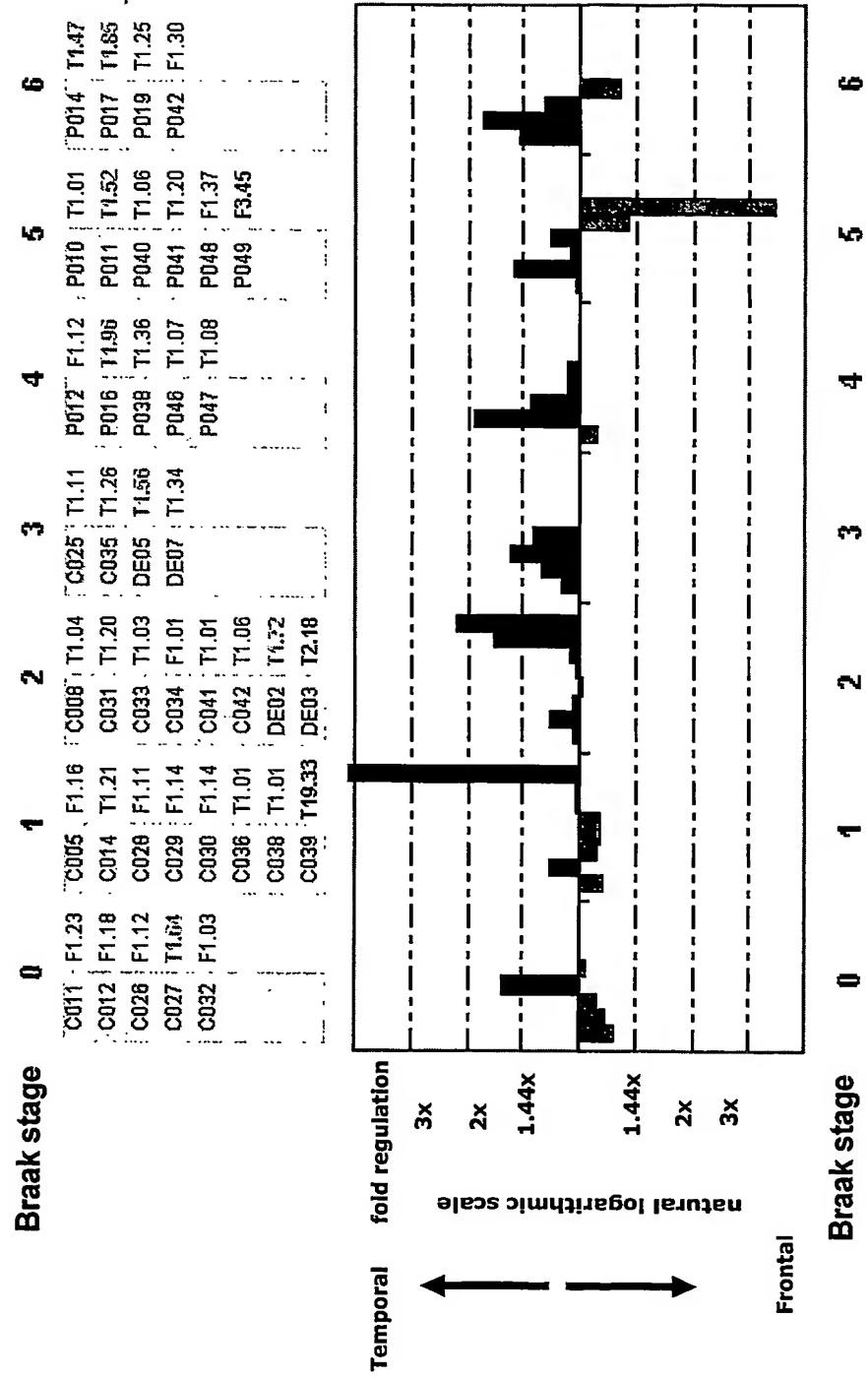
- 9 / 13 -

Fig.7: Analysis of absolute mRNA expression of SGPL1



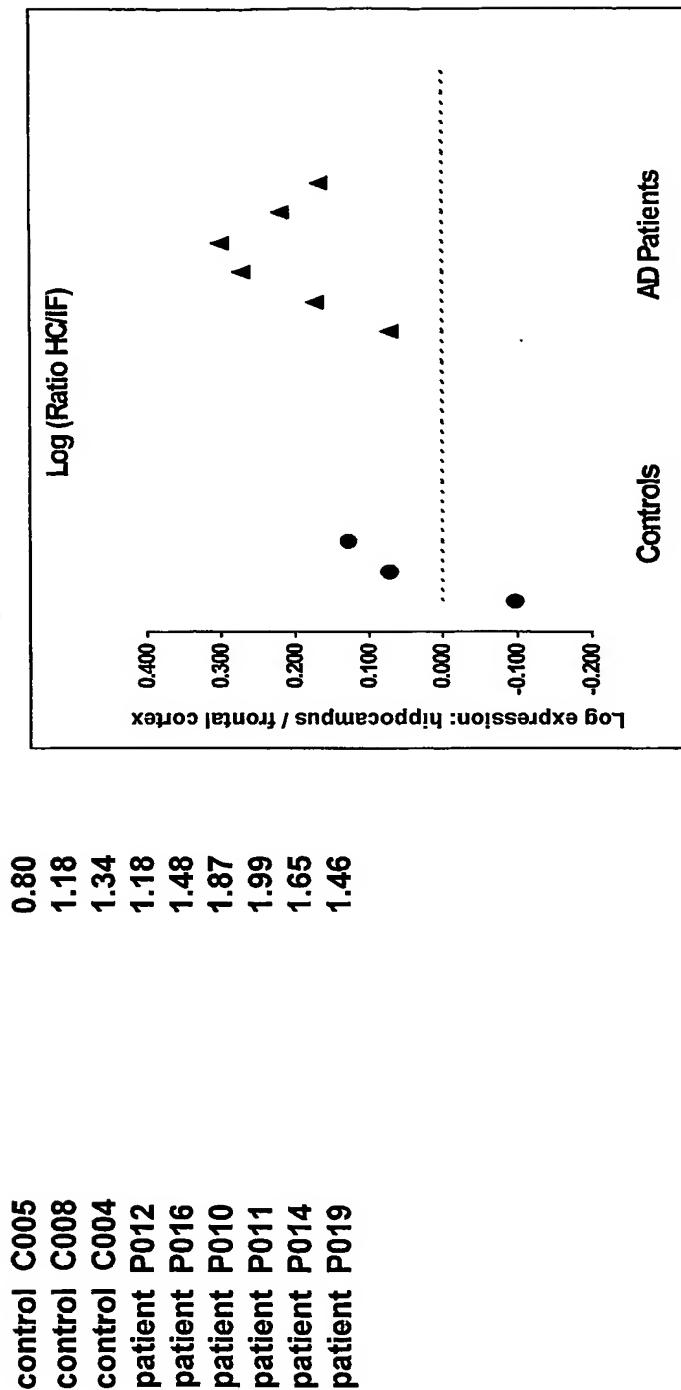
-10/13-

Fig. 8 : Samples Controls AD Patients



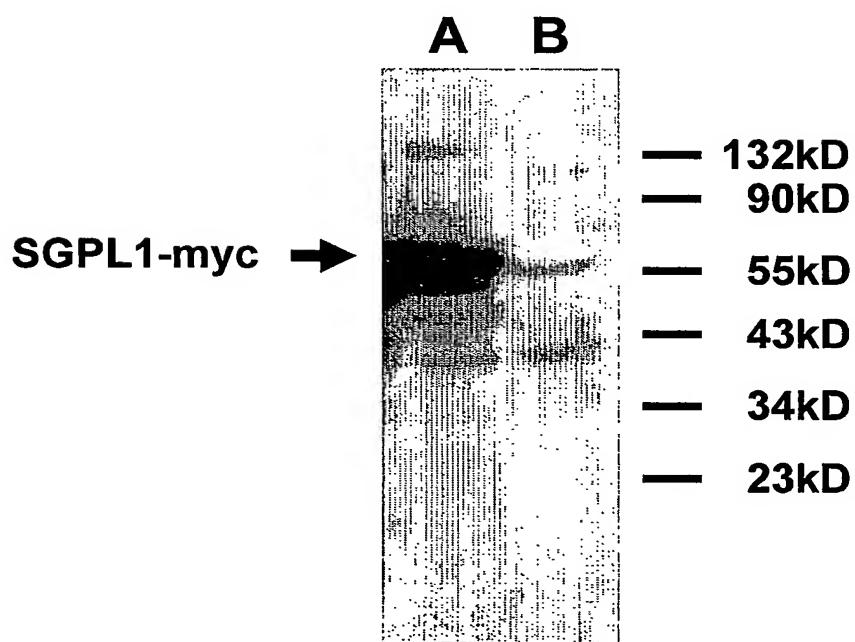
-11/13-

Fig. 9 :
sample Δ (fold)
(hippocampus / frontal cortex)



-12/13-

**Fig. 10: Western Blot of H4APPsw
cell protein extracts
labeled with anti-SGPL1-myc
antibodies**



-13/13-

**Fig. 11: Immunofluorescence analysis of
SGPL1 protein in neuroglioma cells**

